INVESTMENT PERFORMANCE
OF FIXED VS VARIABLE INCOME SECURITIES
HELD BY INSURANCE COMPANIES IN KENYA

BY
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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
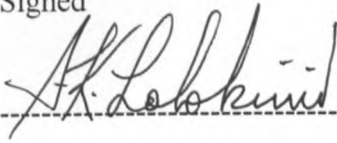ADMINISTRATION, UNIVERSITY OF NAIROBI.**

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DECLARATION

I, Lolokuru Shadrack K., declare that the work presented here is my own except where acknowledged. This dissertation is original and has not been submitted for any degree or certificate in this or any other university or institution of higher learning.

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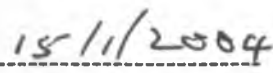Date 2nd Dec. 2003

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Signed

Date 15/1/2004

DEDICATION

This dissertation is dedicated to my dear wife Samuella, my son Saruni, Mom and Dad.

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I wish to acknowledge with gratitude the guidance I received from my supervisor, Mr. M.N. Anyangu during the writing of this dissertation. It is for his critical input that this study has taken the shape it has. In the same mood, I wish to thank all my other lecturers for the knowledge they imparted to me during the course. To all my fellow colleagues and friends, I thank you for your encouragement and invaluable advice.

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Lastly, but not least I absolve all people I have acknowledged above from the responsibility of any mistakes, and the personal opinions expressed in this text.

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ABBREVIATIONS

CMA	-	Capital Markets Authority
GATS	-	General Agreement on Trade in Services
GB	-	General Business
FIS	-	Fixed Income Securities
LT	-	Long Term
LTIB	-	Long Term Insurance Business
NPV	-	Net Present Value
NSE	-	Nairobi Stock Exchange
UNCTAD	-	United Nations Conference on Trade and Development
VIS	-	Variable Income Securities

ABSTRACT

The purpose of this study was to investigate, by analyzing and comparing, investment performance between the fixed and variable income securities held by insurance companies in Kenya, with a view to determine the investment category with better performance. The hypotheses, theoretical framework and the methods of data collection used were presented in the study. The results are intended to assist managers and potential investors in making investment decisions that maximize the value of their firms and thus the wealth of their shareholders.

The study looked at the investment performance of fifteen randomly selected insurance companies over a five-year period between 1997-2001. The study was based on secondary data in which data collected include securities market values, net annual disposals, interest and dividends received. Annual returns and arithmetic means were computed and results compared.

The notion of expected returns and the annual investment data necessitated the use of the Percentage Return Model as the appropriate financial tool. The comparison of annual returns and their arithmetic means together with the empirical evidence on the hypothesis testing suggest that the variable income securities performed better than the fixed income securities over the five-year period under study. It is evident from the study findings that the components of the model used are critical variables in determining securities performance. There is therefore need for good precision of those variables if reliable results and credible comparisons are desired.

CHAPTER 1.

1.0   INTRODUCTION

1.1   BACKGROUND

Different investors have different motives for investing in financial securities. Some invest for financial gains yet others invest for prestige purposes. Ordinarily, the driving force behind most investments is the earning and maximization of return on capital invested subject to certain level of risk (*Shah et al 1990*). Returns thus become a key variable in the investment decision. It is a principle reward in the investment process and the key method available to various investors in alternative investments (*Finnerty 1986*). It allows investors to compare actual or expected results from various investments. Thus measuring historical returns allow investors to assess how well they have performed on various investments and therefore be able to determine whether or not, investing in particular securities is more profitable than investing in others.

1.1.1   Goals of the firm

The firm's investment and financial decisions are unavoidable and continuous. In order to make them rationally, the firm must have a goal. The major goals of the firm include the following:

- Profit maximization
- Shareholder's wealth maximization
- Social responsibility
- Business ethics

Profit maximization

In economic theory the behaviour of a firm is analyzed in terms of profit maximization. While maximizing profit, a firm either produces maximum output for a given amount of input or uses minimum input for producing a given output

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(Pandey 1995). Thus, the underlying logic of profit maximization is efficiency. It is assumed to cause the efficient allocation of resources under the competitive market conditions, and profit is considered as the most appropriate measure of a firm's performance. Note that, profit = revenue - expenses.

Shareholder's wealth maximization

Shareholder's wealth maximization refers to maximizing the net present value (or wealth) of decisions made in the firm. The net present value of an action is equal to the difference between the net present value of its benefits and the present value of its cost. A financial action with a positive net present value will maximize the wealth of the shareholders, while a decision with a negative net present value will reduce the wealth of the shareholders. Under this goal, a firm will only take those decisions that results in a positive net present value.

Maximizing the economic welfare of owners is synonymous to maximizing the utility of their consumption overtime. With the wealth maximized, owners can adjust their cash flows in such a way as to optimize their consumption. From the shareholder point of view, the wealth created by a firm through its action is reflected in the market value of the company's shares. The value of the company's shares is, represented by the market price that serves as the firm's performance indicator.

Social responsibility

Initially, the goal of a business firm was exclusively economic- that is, that of the production and distribution of economic goods and services in return for a profit. However, because of the increasing complexity in the needs of the society in which the business operates and also because the firm's actions have certain consequences on the society, the firms are obligated to consider the societal needs even beyond what the law requires. This may not be directly beneficial to the shareholders, but will improve the business environment. This has along term advantage to the firm and therefore in the long term the shareholder's wealth may be maximized.

Business Ethics

Business Ethics may be defined as a mass of moral principles that ought to be in a business situation. It can be thought of as the company's attitude toward its stakeholders. A firm's commitment to business ethics can be measured by the tendency of the firm and its employees to adhere to laws and other government regulations.

1.1.2 Investment decisions and shareholders wealth maximization

Investment decision involves the allocation of capital or commitment of funds to long-term assets, which would yield benefits in future (*Levy and Sarnat 1990*). Its one very significant aspect is the task of measuring the prospective profitability of new investments. Future benefits are difficult to measure and cannot therefore be predicted with certainty. Because of the uncertain future, investment decisions involve risk. Hence investment decisions should be evaluated in terms of both expected returns and risk (*Fischer & Jordan 1986*).

One other major aspect of investment decision is the measurement of a standard or hurdle rate against which expected returns of new investments can be compared. There is a broad agreement that the correct standard to use for this purpose is the required rate of return or the opportunity cost of capital (*Finnerty 1986*). Investment decisions thus seek to maximize the economic welfare of the firm's owners.

1.1.3 Investment motivations for insurance companies.

The *Insurance Act (Cap 487)* does not provide investment incentives to the insurance companies. Investment of admitted assets, which is specified in Kenya Insurance Act, has been subject to changes. For purposes of the Act, such assets are referred to as admitted assets because they have to be approved by the Commissioner of Insurance (*Republic of Kenya, 1987*). The allocation of these assets has varied from time to time

because it is the Government that decides the manner in which they are invested. The Insurance Amendment Bill of 1994 reduced the investment of long-term assets in Government securities from 25% to 10% and up again to 20% in 1998. In addition, the Act compels all insurance companies to invest at least 20% of their total long-term assets in government securities with 50% of it in a two-year treasury bond (*Republic of Kenya, 1998*).

However, such a change was acceptable at the time when the returns were high, for example in 1997 the interest rates earned from the treasury bills were as high as 27%. When the Act was amended to this effect, the insurance companies did not raise complaints because the investment has been a source of high profits easily earned. With the drop in interest rates to about 8% in 1999, the industry began to feel the adverse effects of this change. Funds were then committed in other investments with higher returns. Such a restriction is interference to the companies' freedom of choice in a market that is being liberalized (*Oduor 1999*). In line with the GATS requirements, this is a restriction of a national level because it discriminates against foreign owned companies not only in investing locally but also in the investment treatment by the government. Such restrictions may bar establishment of trade.

However, there was some freedom on investment in the insurance Amendment Bills of 1994. The companies were allowed to invest part of their assets in private companies. They can also invest more than 5% of their assets in shares, debentures, or loans stock in any other company or group of companies. The insurance companies can obtain bills of exchange for the premiums outstanding from incorporated companies. This allowed a reduction on outstanding premiums (*Republic of Kenya, 1995*).

Another change has been with regard to trade in securities at the Nairobi Stock Exchange. Insurance companies can trade in securities without having to pay the capital gains tax (*Republic of Kenya, 1997*). In 1996, for example, all insurance

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companies put together, held Ksh.3.4billion worth of shares and stocks. They showed reluctance in actively trading in the stock exchange markets abroad and embarked on local investment to encourage local participation of both indigenous and foreign insurance companies.

1.1.4 Investment in securities

Securities are investments that represent evidence of debt, ownership of a business, or the legal right to acquire or sell an ownership of a business. The most common types of securities are stocks, bonds and options. Securities can be categorized into two general forms; namely fixed income securities and variable (equity) income securities. They can be described as follows:

Fixed income securities

A company may secure capital by issuing additional securities such as preferred shares, debentures, and bonds among others. The holders of these securities usually have to be paid a fixed rate of income, which is not dependent on profit of the company. Even when the company makes losses, the interest on debentures and bonds is required to be paid. The dividend on preference shares is fixed but payable out of profit of the company. The issues of securities bearing a fixed income do not affect the control and ownership of the company. Further, interest on debentures and bonds is tax deductible while dividends are not. For this reason, a class of investors opts for securities bearing a fixed income (*Shah et al 1990*).

Variable Income Securities.

Equity share capital represents the permanent capital of the company. The equity shareholders have a residual claim to the earnings of the company. These claimants are entitled to whatever is left after all the other security holders have exercised their claims to the firm's earnings. Depending on the quantum of the profit generated each year, the board of directors declare the percentage dividends to be paid to the equity shareholders. Thus this percentage may fluctuate or vary with each year's profit (*Shah et al 1990*).

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1.1.5 How investors choose between investment alternatives.

According to *Ross et al 1999*, the financial markets provide a benchmark against which proposed investments can be compared, and the interest rate is the basis for a test that any proposed investment must pass. The financial markets give an investor a standard of comparison for economic decision. This benchmark is critical when investment decisions are being made. The basic principle is that investors can never be made worse off by increasing the rate of choices open to them. An investment decision is worth to be undertaken if it increases the range of choices in the financial markets. To do this the decision must be at least as desirable as what is available in the financial markets. If it were not as desirable as what the financial markets have to offer, investors could simply use the financial markets instead of undertaking the investment. This point will govern all investors in their investment decisions. It is the first principle of investment decision-making, and it is the foundation on which all other investment decisions are built.

The NPV rule is used in most cases to evaluate investment decisions (*Hirt 1981*). However, investment decisions may be affected by other factors and this may limit the use of NPV. If a particular investment decision passes the NPV rule, that is, if it has a positive NPV, the decision is undertaken. If the firm takes on such investment, the value of the whole firm will rise by the amount of the NPV. The firm's value will increase if investments are profitable and add to the shareholder's wealth. Thus, investments should be evaluated on the basis of a criterion, which is compatible with the objectives of the shareholder's wealth maximization. An investment will add to the shareholder's wealth if it yields benefits in excess of the minimum benefits as per the opportunity cost of capital (*Ross et al 1999*).

1.2 STATEMENT OF PROBLEM

Innovation in money and capital markets has brought about identifiable developments in the financial system *(Stiglitz 1994)*. There has been, changes in the pattern of institutions, such as the emergence of stockbrokers. Changes in the products offered led to modification and introduction of new products, such as the development of new securities from traditional ordinary shares to corporate bonds, commercial papers, futures and options among others. At the same time micro finance firms have been undergoing changes to cater for changes in people's financial needs. Changes in processes have taken place as is seen in the introduction of computers to store and process data much quicker *(Tjan 2001)*.

The political and economic reforms of the recent times, liberalization and financial innovation in the financial system motivated the idea of financial deepening leading to greater interest in investment of financial securities. These developments have led to increased gambling on the stock market in an attempt to determine security prices *(Gerald 1985)*.

Prior to 1970s most security portfolio managers followed the 'buy and hold' strategies, and hence their investment in various securities did not differ much *(Fischer D & Jordan R.J 1986)*. The investment alternatives especially in financial assets were fewer, thereby reflecting heavy reliance on government securities that offered declining rate of returns. The interest rates were relatively stable and the volume of activity at the market was low. For this reason there was little comparison that could be gained in such circumstances.

The developments in the financial markets rationalized the operations of the public enterprise sector to broaden the base of ownership. This revitalized capital market development through the formation of Capital Markets Authority (CMA), which has spurred increased activity at the Nairobi Stock Exchange (NSE) leading to dramatic increase towards a more active security portfolio management. The dispersion in security performances created a demand for better investment information for investors to identify investment categories that maximize their wealth *(Singh 1997)*. Moreover, the extraordinary growth of international capital flows towards the emerging markets in the first half of 1990 created opportunities for such countries to become a part of global financial markets *(Gerald 1985)*.

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The insurance industry has in the recent past experienced poor performance due to a number of factors (*Ombija 2000*). Claims largely attributed to increased fraud by the insured have depressed savings and investment. These coupled with the depressed state of the economy has led to low earnings and thus low returns on investment (*Mutiga 1991*). This has caused great concerns of the key players in the industry and in the financial markets to venture into new forms of opportunities available in the financial markets.

This study therefore seeks to investigate whether investing in fixed income or variable income securities makes a difference to an investor. The analysis and comparisons are based on past performances by looking at the beginning and ending market values of securities for each period under study, taking into account other relevant variables such as net annual disposals, interest and dividends received. The annual returns and arithmetic means of each security category are computed.

1.3   OBJECTIVE OF THE STUDY

The objective of the study is to evaluate investment performance of fixed income securities versus variable income securities held by insurance companies in Kenya.

1.4   IMPORTANMCE OF THE STUDY

1. To the investors;

Knowledge of investment in fixed income and variable income securities will enable potential investors to compare and to discriminate (on the basis of returns) between good and bad investment opportunities. They will become aware of security market investment opportunities and device ways of exploiting them. They will be able to calculate the reasonable appreciation in the expected price of their securities and quantify risk they are willing to take.

2. *To academicians*

There is little theoretical framework in place in the area of investment performance of fixed income securities and variable income securities. This study will motivate further academic research on investment performance in various securities with a view to identify investment categories that have higher profitable prospects. Such further studies will consider and probe into the analysis of the relevant variables, on a comparable basis, so as to allow a more justified comparison of investment performance between fixed and variable securities.

3. *To others*

The study will be viewed as contributing directly or indirectly to financial analysts, financial decision makers, researchers, investment managers among other interested parties, in arriving at sound decisions involving investment and portfolio management, as well as predicting the future course of a firm in terms of likely earnings, security prices, growth, cash flows among other critical variables.

1.5   HYPOTHESIS

H_0:   There is no difference in investment performance between fixed and variable income securities.

H_1:   There is a difference in investment performance between fixed and variable income securities.

CHAPTER 2.

2.0   LITERATURE REVIEW

2.1   Overview of the Insurance Industry in Kenya

Definition of Insurance Companies

Williams and Heins (1964) defined insurance from two perspectives. Their view from one point is that it is the protection against financial loss provided by an Insurer. On the other side, they looked at it as a device by means of which claims are paid.

Insurance as a service provides for the transfer of the risks being run by an economic agent. The price of covering or insuring a risk is referred to as a premium, while a claim is a commodity that replaces a economic loss. In this way, Insurance provides security against certain risks so that the individual or corporate organizations can go about running their economic activities without fear of loosing their assets. The basic function of insurance as a protection against economic loss has helped it to grow to the sophisticated mechanism that we have today *(Ombija 2000)*.

Classification of insurance

Broadly, insurance is categorized into long-term or life insurance and general or non-life insurance. The former refers to contracts for a period of more than one year, while the latter are short period insurance. Long-term insurance consists of four classes namely; bond investment, industrial life, ordinary life and superannuation. On the other hand, general business includes; aviation insurance, engineering insurance, fire insurance, theft, motor private and motor commercial, marine insurance, public liability, accident insurance, workman compensation and miscellaneous insurance.

Insurance in Kenya, was initiated by, the British Government after the First World War to provide services to the white and Asian communities (*Insurers Institute of Kenya, 1998*). In 1960, the first insurance legislation based on the United Kingdom Insurance Act of 1958 was enacted in Kenya. This did not fully serve the interest of Kenyan people.

Hence on attainment of independence, Kenya realized the need for introducing a new legislation. This was for localization of the insurance industry through the incorporation of all companies and retention of reinsurance business. Consequently the Insurance Act 1984, Chapter 487 of the laws of Kenya was enacted in 1984 and the law was brought into full operation in 1987. Since then the insurance industry in Kenya has grown both in size and in terms of its contribution to the national economic development (*Ombija 2000*).

During the year 2002, there were 40 licensed insurance companies in operation, and 2 local re-insurers. On insurance intermediaries there were 197 insurance brokers, 1074 agents and 2 claims settling agents. Other auxiliary service providers included 7 risk managers, 184 loss assessors, and 19 loss adjustors and 22 insurance surveyors. The insurance sub-sector boasts of an assets base of about Kshs. 66 billion (*Report of the Commissioner of Insurance 2002*).

2.2   Insurance investments and the restrictions of the Act

The investments of insurance companies are to a great extent influenced by the legal framework in which they operate (*Insurance Act CAP 487*). *Section 50* of the Act gives guidelines for investments to be made by both long-term and general business insurers. *Section 50 (1)* directs that long-term insurers should at least invest 20% of their admitted assets in any of the following securities; government securities,

prescribed statutory bodies, local authorities and any other prescribed organizations. This is provided, that 50% of such securities are securities of the government for duration of two or more years. The Act further requires that another proportion amounting to not less than 65% be invested in addition to the above listed securities

- Mortgages on unencumbered immovable property in Kenya
- Debentures, commercial paper, preference shares of public companies listed in the stock exchange in Kenya
- Instruments of title to immovable property in Kenya
- Loans on life assurance policies constituting a liability on Kenya business
- Deposits in banks and other financial institutions licensed under the banking Act

The Insurance Act is restrictive as to the type of investments that insurance companies can make. For example, section 50 (2) enumerates guidelines for general business whereby insurers in this category are required to invest at least 10% in government securities and a further 30% in the following way;

- Mortgages on unencumbered immovable property in Kenya
- Debentures, commercial paper, preference shares of public companies listed in the stock exchange in Kenya
- Instruments of title to immovable property in Kenya
- Loans on life assurance policies constituting a liability on Kenya business
- Deposits in banks and other financial institutions licensed under the banking Act. The balance of the admitted assets for general business may be invested in any other form of investment of the company's choice.

Under the *1984 Insurance Act*, chapter 487, no economic agent is allowed to transact any insurance business without the approval of the Commissioner of Insurance. *Section 48* of the Insurance Act also requires that the Commissioner must approve instruments in overseas securities by insurance companies. All other investors can

invest up to US $500,000 without any approval. This requirement puts the insurance companies at a disadvantage compared to other investors.

Further, an insurer is prohibited from investing directly or indirectly in a private company other than an institution licensed under the Banking Act. The Insurance Act also limits the proportion of life funds that can be distributed as dividends to policyholders or shareholders to 20% while locking the balance to the future.

As can be inferred from above, most insurance experts point out that investment channels for insurers are narrowed and influenced to a great extent by the Act. The above guidelines form a basis for the Commissioner of Insurance (as a regulator for the sub-sector) to vet the investments and use the powers provided by the Act to compel companies to make certain investments.

2.3   The Objects of Choice

Investors are faced with the problem of making investment decisions, that is, of making a return given some level of degree of risk. *Arthur et al 1995*, provide five major critical factors that an investor considers in making choice of an investment:

- *Security* -Investments should at least maintain their capital value.
- *Liquidity* - Where investments are made with short-term funds they should be convertible into cash at short notice.
- *Return* - The highest return compatible with safety should be sought.
- *Spreading risk* - A better policy is to spread investment over several types of securities so that losses on some may be offset by gain on others.
- *Growth prospects* - Profitable investments should lead to good growth prospects.

The Risk-Return Trade off

Most investors regard risk and return as the major objects of choice in an investment situation. When investors make investment decisions, they assess the risk and return of the investment they want to undertake. It is assumed that investors are basically

risk-averse, which means that given a choice between two assets with equal rates of return they will select the asset with lower level of risk. According to *Pandey 1990*, the relationship between risk and return can be expressed as follows:

Return = Risk-free rate + Risk Premium

Risk-free rate is a compensation of time and *Risk premium* is compensation for risk.

It can therefore be inferred that the higher the risk of an action, the higher will be the required return on that action. A proper balance between risk and return should be maintained to maximize the market value of the firm's shares. Such a balance is called *risk–return trade-off*, and most financial decisions involve this trade-off.

Types and measures of risk

Risk can be thought as the possibility that the actual return from holding a security will deviate from the expected return (*Finnerty 1986*). It is a crucial element in the determination of return as the various factors that determine it contribute to the level of risk. In analyzing risk, the focus is not an adverse outcome only, but all possible outcomes since rational investors do not take risk unless they earn some risk premium. According to *Haugen 1986*, there are two components of risk: Systematic risk (un-diversifiable risk) and Unsystematic risk (diversifiable risk).

- *Systematic risk*

This is that risk that cannot be eliminated through diversification. It is a market related risk and arise because individual security returns move with changes in the market- hence it is risk inherent in the market. It is caused by macroeconomic factors such as inflation, changes in technology, interest rate changes, exchange rates, balance of payment situations among others. It is measured by beta.

- *Unsystematic risk*

It is risk that can potentially be eliminated through diversification- hence it is a risk that is unique to a particular security. It is caused by microeconomic factors such as volatility of a firm's expected earnings, company's policies, labour and strikes among others.

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Unsystematic risk is reduced at a decreasing rate towards zero as more randomly selected securities are added to the portfolio. Various studies suggest that 15-20 securities selected randomly are sufficient to eliminate most of unsystematic risk of a portfolio. The two components of risk can be illustrated in a diagram as follows:
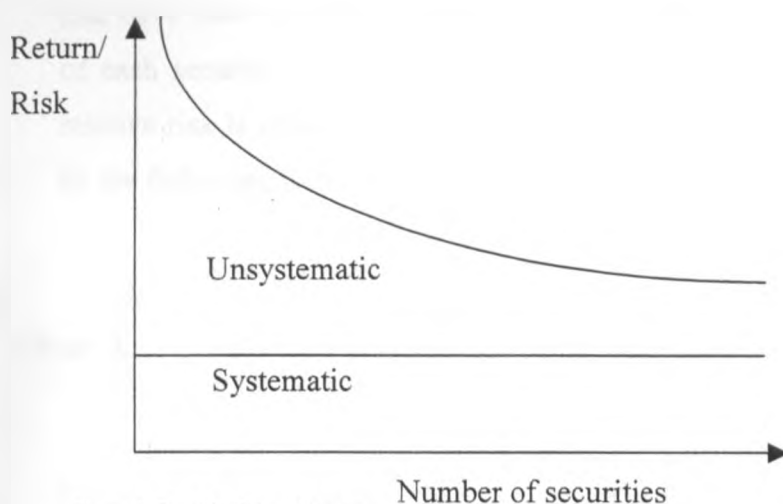
Figure 1: Portfolio Diversification.

Measuring risk

Since managers are risk-averse with the objective of maximizing the wealth of the shareholders, they are required to take into account the element of risk in analyzing the worth of an investment decision. Because investment proposals entail differing degrees of business risk, one must analyze not only the expected return but also the possible deviations from those expectations. Risk shows how the price of a security responds to market forces and it has an impact on the expected return from a security (*Pandey 1995*).

- *Total risk for a single investment* (Standard deviation (δ))

$$\delta = \{ \Sigma [R_i - E (R_i)]^2 P_i \}^{1/2}$$

Where

$E (R_i)$ = expected return
R_i = the return for the ith possibility
P_i = probability of occurrence

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- *Portfolio standard deviation*

The risk of a portfolio depends not only on the standard deviations of the individual securities but also the combined risk of securities comprising the possible returns of the portfolio (*Karanja J. 2001*). Thus by combining securities that have little relationship to each other, an investor can reduce the relative risk of each security. Diversification is combining securities in such a way that the relative risk is reduced (*Haugen 1986*). The portfolio standard deviation is given by the following formula;

$$\delta_p = \{\sum_{i=1}^{n} w_i^2 \, \delta_i^2 + \sum_{i=1}^{n} \sum_{i=1}^{n} w_i w_j Cov_{ij}\}^{1/2}$$

Where δ_p = the standard deviation of the portfolio

       w_i = the weights of the individual assets in the portfolio (where weights are determined by the proportion of the value in the portfolio)

       δ_i^2 = the variance of rate of return for asset $_i$

    Cov_{ij} = the covariance between rate of returns for asset $_i$ and $_j$

- *Covariance of returns*

  It is a measure of the degree to which two variables 'move together' relative to their individual mean values over time. It is the appropriate measure of the contribution of a single asset to portfolio risk. It is given by the following formula; $Cov_{ij} = E \{ [R_i - E(R_i)][R_j - E(R_j)] \}$

- *Correlation coefficient* (r_{ij})

The correlation coefficient between two random variables is defined as the covariance divided by the product of the standard deviations (*Samuel & Wilkes 1989*). It ranges from -1 to $+1$. The value $+1$ would indicate a positive linear relationship between R_i and R_j, meaning the returns for the two securities move together in a completely linear manner. The -1 value would indicate a perfect negative relationship between the two securities such that when one security's rate of return is above its mean, the other security's rate of return will be below its mean by a comparable amount. It is given by the following formula;

$$r_{ij} = \frac{Cov_{ij}}{\delta_i \delta_j}$$

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Where
    r_{ij} = expected correlation between possible returns for securities i and j

    δ_i = standard deviation for security $_i$

    δ_j = standard deviation for security $_j$

2.4 Factors to consider in investment choices.

According to *Shah et al 1990,* the basic objectives governing an investment choice includes the following:

Profit

The main reason why people invest their idle funds is for earning a profit. Profit can be realized in either or both of the following forms; *capital appreciation* or and *yield.* Capital appreciation occurs when an investment is disposed of at a higher value as compared to the price on which it was purchased. The difference between the net selling price and the purchase price denotes capital appreciation. Yield from an investment, is derived in the form of interest or dividend. The rate of interest is usually fixed whereas the rate of dividend may fluctuate from year to year as it depends on the profitability of the concern in which money has been invested. Interest and dividend are payable on the face value of the investment. Thus to maximize the return from his funds, an investor should settle an avenue of investment after duly considering both the expected yield and the capital appreciation.

Liquidity

An investment is said to be liquid if it can be converted into cash or sold as and when required. A liquid investment would enable an investor to en-cash it in times of need. It would also permit the investor to sell off an un-remunerative investment (thereby cutting off losses), and switch over to a more promising investment. Thus, the liquidity of an investment gives the investor flexibility in the face of changing economic and political environment.

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Safety

An investor would be primarily concerned with his investment being safe. Adequate protection should exist against risk of loss of capital. However, an absolutely safe investment would correspondingly yield a lesser return. The objective of safety should therefore be reconciled with the investor's other aims. Fixed income securities would grant an investor safety but at a cost of a lesser income received. Alternatively an investor would invest in a diversified list of various growth-oriented industries with each security carefully selected. This would enable the investor to achieve safety and a satisfactory yield as the risk would be spread out among different securities expected to appreciate in value.

Tax- Implications.

Tax planning is an essential part of overall investment planning. If the investment and de-investment in securities is made without considering the various provisions of the tax laws, the investor may find that most of his profits have been eroded by the payment of taxes. A good tax planning does not only reduces the tax payable on investment gains but also helps an individual to safe taxes on other income (debt income). Hence the investor should aim at earning the maximum post-tax return.

Inflation

In our country, every year, the purchasing power of the shilling declines as we suffer continuing inflationary conditions. So our capital is eroded every year to the extent of this inflation. The return on any investment should be regarded as positive only if a surplus remains after taking into account the effect of inflation.

Government statutes

Various government statutes like the Gold Control Act, affect investment decisions and so they need to be considered.

2.5   Expected return for individual security

For an individual security, the relevant risk is not the standard deviation of the
security itself (total risk), but the marginal effect the security has on the standard
deviation of an effective diversified portfolio (systematic risk). As a result, a
security's expected return should be related to its degree of systematic risk, not to its
degree of total risk, (*Fabozzi & Kole 1985*). Systematic risk is what matters to an
investor holding a well-diversified portfolio. If the unsystematic risk is assumed to be
eliminated the expected rate of return of a security can be expressed in terms of a
factor model (using either single or multiple risk components) that characterize
unavoidable risk. Hence the required return establishes a level of compensation that is
compatible with the amount of risk involved. Expected return is given by the formula;

$$E(R_i) = R_f + (E(R_m) - R_f)\beta_j$$

Where;

Rf   = the risk free rate

E(Rm) = the expected return from the market

β_j = the beta coefficient of security $_j$

Since $\beta_j = \dfrac{r_j m\ \delta_j \delta m}{\delta^2 m}$

$$E(R_i) = \frac{R_f + (E(R_m) - R_f)\ r_j m\ \delta_j \delta m}{\delta^2 m}$$

This is the minimum rate of return that an investor requires to earn on a worthwhile
investment given its risk characteristics.

2.6   Measures and determinants of a security return

According to *Finnerty 1986*, the expected rate of return from a security is that return which an investor anticipates to earn over some future period of time. It may or may not occur but it is a vital measure of performance. Return from a particular investment consists of two components; the periodic cash receipts (or income), either in the form of interest or dividends, and the change in the price of the security known as capital gain or loss. Return can be measured in the following ways:

- *Total return*

Total return = Income plus price change (-/+)

or

Total return = $\dfrac{\text{cash payments received} + \text{price change over time}}{\text{Purchase price of the security}}$

Thus, returns across time or from different securities can be measured and compared using the total return concept.

- *Arithmetic return*

The change in the price of a security can also be estimated using the arithmetic return. This is the sum of each of the values being considered divided by the total number of values. It is given by the formula:

$$X = \sum x / n$$

Where X = arithmetic mean.

This is an appropriate measure of the central tendencies of a number of returns calculated for a particular time.

- *The geometric Average*

This is defined as the nth root of the product resulting from multiplying a series of returns together less one. It gives the true rate of return for multiple periods.

$$G = (1+R_1)(1+R_2)(1+R_3) \ldots (1+R_n)^{1/n} - 1$$

Where R = Total returns

                  N = Number of period

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The following is the general formula for returns;

$$P_0 = \sum_{t=1}^{n} D_t/(1+r)^t + P_n/(1+r)^n$$

Where

P_0 = market price at time $_0$

D_t = the expected dividend at end of period t

P_n = the expected terminal value at end of period n

r = the expected rate of return

The expected rate of return would be obtained by solving for *r* in the above two equations. If the end period is known with certainty, then so is the rate of return. In reality however, this is not possible. Thus, for risky securities, the rate of return is calculated by assigning probabilities to various possible outcomes as is the case under utility-theory given uncertainty condition.

$$E(R_p) = \sum_{t=1}^{n} R_i P_i$$

Where

P_i = probability of a random event R_i

n   = total number of possible events

$E(R_i)$ = expected return

For a portfolio of investments, the expected rate of return is simply the weighted average of the expected rate of returns from the individual investments.

$$E(R_p) = \sum_{t=1}^{n} W_i R_i$$

Where W_i = the percentage of the portfolio in security $_i$

R_i = the expected rate of return for security $_i$

n = number of portfolios

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2.7   Security performances

The return earned by an investment in stocks, like that in bonds or any other instrument, come in two forms (*Ross et al 1999*): Over the years, companies pay dividends to shareholders. If the company is profitable, it generally will distribute some of its profits to the shareholders. Therefore as the owner of the shares of stock, an investor will receive some cash, called dividend, during the year. The cash is the income component of an investor's return. In addition to the dividends, the other part of the return is capital gain, or if it is negative, the capital loss on the investment.

The percentage return for both dividends and capital gain can, be calculated as follows:

- *Dividend Income*

Dividend yield $= \dfrac{D_1}{P_0} \times 100\%$

Where

  D_1 = dividend paid on the stock during the year

  P_0 = the price of the stock at the beginning of the year

- *Capital Gain*

Capital gain is the change in the price of the stock divided by the initial price. It can be computed by the formula

Capital gain $= \dfrac{P_1 - P_0}{P_0} \times 100\%$

Where P_1 = the price of the stock at the end of year

          P_0 = the price of the stock at the beginning of the year

Investment Performance of Insurance Industry

During the year 2001 there were only 2 insurers who specialized in life business, while for general business alone there were 15 licensed insurers and another 22 composite insurers (*Report of the Commissioner of Insurance 2001*). In addition to these, there were 2 locally incorporated reinsurance companies. The significance of

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the above structure is in the fact that purely long-term insurers have different investment priorities from those of general business insurers. This is because of the nature of their flow of funds, whereby premium income flows are mostly on a monthly basis under the life business, while annual premium income are paid upfront under the general business. On the other hand, the claims patterns are different for the two categories and hence their needs for liquidity levels also differ.

Based on the foregoing, long-term insurers tend to invest their funds (life funds) in medium and long-term returns related investments, while general business insurers invest in short-term return investments because of the need to be liquid. The composite insurers therefore have to balance between the profit maximization and liquidity.

Table 1: **Investment data for insurers 1997-2001**

	KSH. '000				
	1997	**1998**	**1999**	**2000**	**2001**
GOV'T SECURITIES	4,123,423	14,793,982	16,750,624	16,756,390	20,240,926
LOCAL AUTHORITIES	8,600	0	0	0	0
OTHER SECURITIES	672,893	1,340,048	1,113,965	1,093,647	1,870,894
DEBENTURES	36,565	20,220	92,807	1,061,033	62,170
PREFERENCE SHARES	44,235	134,679	321,723	47,260	997
ORDINARY SHARES	5,478,968	5,900,481	5,003,636	4,109,674	4,604,285
SECURED LOANS	2,663,449	2,871,087	2,665,492	2,976,876	2,875,952
UNSECURED LOANS	84,451	46,498	99,851	227,251	57,421
BANK DEPOSITS	7,079,425	4,465,379	3,751,668	4,493,269	4,346,641
LAND & BUILDINGS	5,443,302	19,860,425	21,333,753	22,786,078	19,261,432
TOTAL	**25,644,311**	**49,632,790**	**51,133,519**	**53,551,478**	**53,320,718**

Source: Commissioner of Insurance

Figure 2: Trends on Overall Investment Growth

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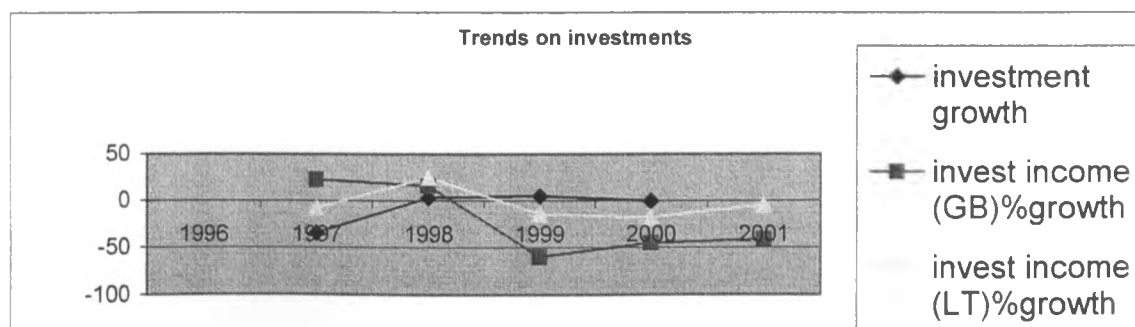
From the above chart overall investment for the industry increased from Ksh.25.6 billion in 1997 to Ksh.53.3 billion in 2001, however over the period 2000/2001 there was a slight decline in investments from Ksh.53.6 billion in 2000 to Ksh.53.3 billion in 2001. Investment income on the other hand for general business experienced growth over the periods 1997 and 1998 only to embark on declining trend in the period 1999 – 2001, averaging a decline of 45 percent per year during this period. This trend can be explained by increases in claims largely attributed to increased fraudulence by insurers during this period and partly by the depressed state of the economy leading to low returns on investment.

Table 2. Investment channels under LTIB: 1997-2001

	KSH. '000				
	1997	1998	1999	2000	2001
GOV'T SECURITIES	6,969,680	8,353,726	9,822,452	9,628,513	20,240,926
LOCAL AUTHORITIES	0	0	0	0	0
OTHER SECURITIES	167,100	786,380	483,441	620,385	1,870,894
DEBENTURES	17,750	14,101	17,440	880,528	62,170
PREFERENCE SHARES	41,930	5,601	316,532	25,622	997
ORDINARY SHARES	2,410,320	3,591,634	2,533,729	1,726,287	4,604,285
SECURED LOANS	1,317,230	1,660,435	1,669,795	1,967,606	2,875,952
UNSECURED LOANS	0	6,056	3,000	91,545	57,421
BANK DEPOSITS	1,521,180	1,257,480	1,270,305	2,033,538	4,346,641
LAND & BUILDINGS	6,894,520	7,113,646	7,387,714	8,162,422	19,261,432
TOTAL	18,969,710	22,789,059	23,504,408	25,137,466	53,320,718

Source: Commissioner of Insurance

On the other hand, long-term investments income declined by an average of 12.6 percent during the period 1999-2001. Similarly the decline can be explained by reduced incomes of the insurable population as evidenced by the declining per capita income. Further, increased mortality rate has led to a rise in death claims that have eaten into net investment income.

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Table 3. Industry investment channels (%)

	1997	1998	1999	2000	2001
GOV'T SECURITIES	16	30	33	31	38
LOCAL AUTHORITIES	0	0	0	0	0
OTHER SECURITIES	3	3	2	2	4
DEBENTURES	0	0	0	2	0
PREFERENCE SHARES	0	0	1	0	0
ORDINARY SHARES	21	12	10	8	9
SECURED LOANS	10	6	5	6	5
UNSECURED LOANS	0	0	0	0	0
BANK DEPOSITS	28	9	7	8	8
LAND & BUILDINGS	21	40	42	43	36
TOTAL	100	100	100	100	100
VARIABLE INVESTMENTS	63	30	26	26	26
FIXED SECURITIES	16	30	33	31	38

Source: Commissioner of Insurance

The proportion of investments for the insurance industry in fixed Income securities (Treasury Bills) has been on a steady rise since 1997 to stand at 38 percent of the total investment by 2001. On the other hand investments in variable financial assets have been on a declining trend from 63 percent in 1997 to 26 percent in 2001. However investment in real assets has been growing in relation to the financial assets increasing from 21 percent in 1997 to 36 percent in 2001. On average the proportion of these investments was 36.4 percent for the entire period.

Long-term business investment channels proportions are tabulated below:

Table 4. Investment channels under LTIB (%)

	1997	1998	1999	2000	2001
GOV'T SECURITIES	36	37	42	38	38
LOCAL AUTHORITIES	0	0	0	0	0
OTHER SECURITIES	1	3	2	2	4
DEBENTURES	0	0	0	4	0
PREFERENCE SHARES	0	0	1	0	0
ORDINARY SHARES	13	16	11	7	9
SECURED LOANS	7	7	7	8	5
UNSECURED LOANS	0	0	0	0	0
BANK DEPOSITS	8	6	5	8	8
LAND&BUILDINGS	35	31	31	32	36
TOTAL	100	100	100	100	100
VARIABLE INVESTMENTS	29	32	27	29	26
FIXED SECURITIES	37	37	42	38	38

Source: Commissioner of Insurance.

Investments for the long-term business have remained almost constant at 38 percent during the five years period for fixed income securities and averaged about 29 percent for variable financial assets. The real assets investment is slightly lower in long-term business insurance averaging about 33 percent of total long-term investment compared to the 36.4 percent average for the industry.

CHAPTER 3.

3.0   RESEARCH METHODOLOGY

3.1   **RESEARCH DESIGN**

This study was done through a survey of insurance companies as institutional investors in both fixed and variable income securities.

3.2   **POPULATION**

There were 39 insurance companies operating in Kenya over the period under study. These insurance companies formed the population of study.

3.3   **SAMPLING**

The method of sampling used was stratified sampling. This is due to diversity of the insurance sector and the need to have a representative sample. The insurance companies were classified into the following classes:

- Long-term Insurers
- General Business Insurers
- Composite Insurer

Because of the difficulties in obtaining information from confidential annual reports and statistical records of these private companies, and the fact that this study is a simple one with tight experimental controls (use of actual and highly reliable data), a random sample of 15 insurance companies was drawn from the above three categories so as to capture the diverse characteristics. The sample of the insurers was further categorized into those with a share capital of between Ksh.50 million and below 100 million, Ksh.100 million to 150 million and those above 150 million.

3.4   DATA COLLECTION

In this study secondary data was used. The secondary data was obtained mainly from Annual Reports of the Commissioner of Insurance, Insurance Statistics and Financial Statements of the insurance companies. Other relevant literature, include published and unpublished works such as: Books, Journals, Periodicals, Newspapers, Seminar paper, Magazines, UNCTAD reports and documents, Public documents and other materials considered useful for the study. The data was used to indicate performance trends of both the fixed and variable income securities for the period 1997 to 2001.

3.5   DATA ANALYSIS

This study analyses performance of fixed and variable income securities held by insurance companies in Kenya over a five-year period between 1997-2001.

Annual return for each investment category was computed for each insurance company under study. The model used was a percentage return formula of the form;

$$R_1 = \frac{D_1}{P_0} + \frac{P_1 - P_0}{P_0}$$

Where

D_1 = dividend/interest income paid at end of the period
P_1 = market value of security at end of the period
P_0 = market value of security at beginning of the period

Based on this, an arithmetic mean was calculated per category for each year. A comparison was then made on the calculated arithmetic mean for each year. Further, an overall arithmetic mean for each category over the five-year period was calculated and the overall performance compared.

Further, a hypothesis on the arithmetic means over the five-year period was tested using a 'two-tail' t-test at 0.01, level of significance. A conclusion was then drawn on the significance difference in the investment performance between fixed and variable income securities.

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CHAPTER 4

4.0   ANALYSIS OF SECURITIES PERFORMANCE

This chapter analyses and compares the investment performance of fixed and variable income securities held by insurance companies in Kenya. It also presents the empirical evidence of performance between the two investment categories.

4.1   **Results of securities performance**.

The data used to produce results of annual returns for the 15 Insurance companies under study are shown in appendices C, D and E. This data include the beginning market values (P_0), the ending market values (P_1), the dividends received and also interest received. Appendices A and B, show, the annual return results for each investment category, for all insurance companies over the five-year period.

The annual returns and their arithmetic means are as in Table 5. As can be seen from the table, the two investment categories show different performance over the five-year period. A comparison of the annual returns of the 15 insurance companies under study indicates that the VIS performed better than the FIS over the five-year period. In terms of arithmetic means per category, VIS shows better results in all cases. This is partly because of exceptionally high annual returns of Geminia Insurance Company over the five-year period. The data in appendix C, indicates that Geminia had high volume of variable income securities traded over the five-year period whilst simultaneously maintaining constant beginning and ending market values of these securities.

Table 6, shows a comparison of the overall arithmetic means for the two investment categories for the five-year period. As can be seen, the overall performance for the two investment categories indicates that VIS has a higher return aggregated result

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than the FIS. Again this is due to exceptionally high annual returns of Geminia Insurance Company.

Table 5. **Comparison of Annual Returns: 1997 - 2001**

	1997		1998		1999		2000		2001	
	VIS	FIS	VIS	FIS	VIS	FIS	VIS	FIS	VIS	FIS
1. Blue Shield Ins. Co. (K) Ltd	1.081	2.3957	3.691	0.065	13.500	0.374	1.751	0.463	0.695	0 445
2. British American Ins. Co. (K) Ltd	1.791	0.819	1.773	0.294	2.307	-0.059	0.564	0.443	0.000	0.490
3. Cannon Ins. Co (K) Ltd	0.536	0.499	0.985	1.006	0.007	0.270	-0.462	0.123	2.229	0.221
4. Fidelity Shield	0.707	1.071	0.502	0.461	0.527	-0.033	0.744	0.901	0.130	0.954
5. First assurance Co Ltd	12.904	0.834	0.921	0.485	7.176	0.322	0.000	0.161	0.000	0.573
6. Geminia Ins. Co Ltd	16.530	0.887	30.991	0.592	39.030	0.520	8.195	-0.025	1.275	0.967
7. The Heritage A.I.I. Ins. Co Ltd	3.436	4.773	2.387	0.331	0.310	0.680	0.087	0.442	0.136	-0.227
8. ICEA Ins. Co Ltd	0.131	0.728	0.072	0.121	-0.315	0.559	-0.610	0.182	2.127	0.614
9. Jubilee Ins. Co. Ltd	0.478	1.191	-0.115	0.344	-0.220	0.326	0.604	-0.036	0.230	0.657
10. Kenya Orient Ins. Co. Ltd	0.000	-0.270	0.000	0.156	0.448	0.597	0.416	0.131	0.215	-0.418
11. Madison Ins. Co. Ltd	0.358	0.917	0.525	0.721	0.052	-0.072	0.164	0.288	0.299	0.129
12. Mercantile Life & Ass. C. Ltd	0.000	2.020	0.000	1.249	3.558	0.271	15.072	0.446	4.393	0.404
13. Old Mutual Life Ass. Co. Ltd	1.840	0.655	0.247	0.840	-0.067	0.174	-0.045	0.178	-0.016	0.321
14. Phoenix of E.A. Ass. Co. Ltd	0.355	2.354	0.371	-0.272	-0.027	0.230	0.351	0.527	-0.094	0.775
15. United Ins. Co. Ltd	0.514	1.308	0.321	0.406	-0.180	17.855	-0.379	1.174	21.944	0.440
Total Returns per Category	40.661	20.181	42.671	6.797	66.106	22.014	26.451	5.399	33.562	6.346
Arithmetic Mean per Category	2.711	1.345	2.845	0.453	4.407	1.468	1.763	0.360	2.237	0.423

Source: Summary Results (x 100%)

Table 6. Comparison of overall Arithmetic Means: 1997 - 2001

		CATEGORY	
Year		VIS	FIS
1997		2.711	1.345
1998		2.845	0.453
1999		4.407	1.468
2000		1.763	0.360
2001		2.237	0.423
Overall Return/Category		13.963	4.049
Overall Arithmetic Mean		2.792	0.810

Source: Summary Results (x 100%)

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4.2   Hypothesis: Use of t-test

The results of the t-test are as shown in Table 7. The results indicate that the difference in the means for VIS and FIS of 2.8 and 0.82, with a Standard Deviation of 0.87 and 0.52 respectively is significantly different. Since the two investment categories are independent, the significance of the t-value is showed under the separate variance estimate column. As can be seen the calculated t-value is 4.37 while the critical (table) value for a 'two-tail' t-test is 3.36 given a 0.01 level of significance. Since the standardized t-value of the sample difference between the means is outside the acceptable regions, the results imply that there is a significant difference in investment performance between the fixed and variable income securities.

Table 7. Results of t-test

Variables	No. of Cases	Mean	Std. Dev.	Calculated t-Value	No. of Freedom	Critical Value
VIS	5	2.8	0.87	-	-	-
	-	-	-	4.37	8	2.9
FIS	5	0.82	0.52	-	-	-

Source: Summary Results

CHAPTER 5

5.0   FINDINGS AND POLICY RECOMMENDATION

5.1   Conclusion

The annual returns and their arithmetic means were used as a basis for comparison of investment performance between fixed and variable income securities with a view to determining the investment category with better returns.

The main findings indicate that there is a difference between investment performance of fixed and variable income securities held by insurance companies in Kenya. The findings indicate that the annual returns and their arithmetic means are influenced by the critical variables used. Other important variables would include the annual inflation rate, interest rates and the unstable economic conditions. This economic instability explains the fluctuating annual returns over the five-year period. The rejection of the null hypothesis also indicates that there is a significant difference between the two forms of investment.

5.2   Policy Recommendations

The findings of the study indicate differing and fluctuating investment performance results between the two investment categories. However, it is difficult to obtain a credible and reliable comparison because of the unrelated variable quantities. The beginning and ending market values, the annual disposals during the year and the annual interest and dividends received under the two forms of investment have no basis for comparison. Therefore, there is a need for a sensible comparison between the performances of the two investment categories. Investment policies should be put in place to provide ways and means by which investment performance between the two categories could be reasonably made and compared. Hence a well-planned and comparable approach is desirable.

The degree of innovation in money and capital markets in Kenya as in elsewhere today has brought about increased gambling in financial markets. Most investors are not well informed on how to identify and make rational investment decisions that maximize their returns. It is therefore recommended that institutional investors should device ways and means that promptly give them an indication of profitable investment alternatives.

It is also recommended that the government should provide more tax and other incentives to encourage the insurance companies to make serious investment decisions in financial securities. In addition, making insurance business more profitable will encourage competition and this will enable the insurance industry to make investment choices in financial securities more attractive.

In an emerging market, most new and potential dealers in financial securities do not have very clear idea why they want to invest in such securities. Looking for regular flow of income may not be the case where dividend policy is to reinvest profits for future earnings. The CMA should therefore explore ways and means of covering the interest of such investors in accordance with International Disclosure Requirements.

Section 48 of the Insurance Act requires that the Commissioner of Insurance approve investments by insurance companies in overseas securities. The liberalization of foreign exchange has removed such controls for all other investors who can invest up to US$500,000 without regulatory approval. This requirement puts the insurance companies at a disadvantage compared to non-insurance investors. Hence section 48 of the Act should be repealed.

Section 50 of the Insurance Act (which prescribes the areas of investment of surplus funds by insurance companies) should be repealed to place insurance companies to the same level ground with other financial institutions. The industry should be

deregulated to enable investment of surplus funds in the financial securities that will generate higher returns.

5.2   Limitations of the study

The objects of this study were based on data from financial statements of insurance companies. As private companies, this information was treated strictly confidential and therefore it was not easily obtainable from all insurance companies. Actual volume of securities bought and sold during the year were not available. This therefore necessitated the use of net annual disposals made available.

5.3   Suggestions for further research

This study compared investment performance between the fixed and variable income securities barely with any form of relationship. The initial capital invested in the two investment categories and the amounts of critical variables influencing performance were completely different and unrelated. Lack of simultaneous uniformity and consistency in the employment of critical variables in the two forms of investment may deter a credible comparison. Further research, therefore need to be done to put in place a reasonable basis by which investment performance between the fixed and variable income securities could be compared.

REFERENCES

1. Slywotzky A.J and Wise R. (2002): Ideas with Impact: "The Growth Crisis and How to escape it", *Harvard Business Review*, Vol.80 No.7, PP.72-83.

2. Stewart G. B. (2003): Ideas with Impact: "Pension Roulette: Have You Bet Too Much on Equities?", *Harvard Business Review*, Vol.81 No.6, PP.104-109

3. Kevin P. and Jonathan W. (2002): Ideas with Impact: "Taking the Mystery Out of Investors Behaviour", *Harvard Business Review*, Vol.80 No.9, PP.68-78.

4. Thomke S. (2001): Ideas with Impact: "The New comparative for Innovation", *Harvard Business Review*, Vol.79 No.2, PP.66-74.

5. Tjan A. (2001): Ideas with Impact: "Finally, A Way to Put Your Interim Portfolio Order", *Harvard Business Review*, Vol.79 No.2, PP.76-85.

6. Shah .A., Editor: **Fiscal Incentives For Investment and Innovation**, Published for the World Bank, Oxford University Press.

7. Berger A., Richard H.J and Szego P. G. (1995): **"The Role of Capital in Financial Institutions"**, Wharton Financial Institution Centre Working Papers Series.

8. Bonie, Kane, & Marcus (1993): **Essentials of Investments**, Irwin Homewood, IL Boston.

9. Arthur C., Williams J, Michael L. S and Peter C.Y (1995): **Risk Management and Insurance**, 7th Edition, McGraw-Hill Int.

10. Commissioner of Insurance, *Report of the Commissioner of Insurance for the years ended 31st December 1996-2001*. Government Printers Press.

11. Fischer D. and Jordan R.J (1986): **Security Analysis and Portfolio Management**, 5th Edition, Prentice Hall of India, New Delhi.

12. E.V.K Fitz Gerald (1996): **Financial Liberalization; "The Lessons for Commonwealth LDC"**, Oxford OXI 3LA, U.K.

13. Oduor F.N.O (1999) *"Liberalization of International Trade In services; A case of Kenya's Insurance Companies"*, Unpublished MA Project.

14. Fabozzi F.J and Kole S. (1985): **Selected topics in Investment for Financial Planning**, Dow Jones-Irwin, Homewood, Illinois.

15.   Harker T., Patrick & Zzenios A.S. (1998): **"What drives The Performance of Financial institutions"**? Wharton Financial Institutions Centre, Working Paper Series.

16.   Pandey I.M (1995): **Financial Management**, 7th Edition; Vikas Publishing House PVT Ltd- New Delhi.

17.   Insurers Institute of Kenya (1998): "The Origin of Insurance in Kenya".

18.   Investment Research (E.A) Ltd (2000): **A Guide to Business and Financial Terminology**.

19.   Stiglitz and Joseph E (1994): "The Role of the State in Financial Markets", World Bank Annual Conference of Development 1993, Washington D.C.

20.   Kenya Insurance Statistics: *Long-Term and general Insurance Business, for the years ended 31st December 1997-2002.*

21.   Shah K., Shah P and Doshi A. (1990): **How to Invest well: "A guide to the share market and personal investments"**, Tata McGraw-Hill Publishing Co. Ltd, New Delhi.

22.   Market Intelligence (2001): *"The Business and Finance Journal"*, Banking Survey.

23.   Market Intelligence (2002): *"The Business and Finance Journal"*, Banking Survey.

24.   Wagacha M. (1999): Interest Rates Under A Treasury Bill Regime; "A Macro-economic & Financial Implication For Kenya", Discussion Paper No.209, Institute of Policy Analysis & Research.

25.   Samuels and Wilkes (1989): **Management of Corporate Finance**, 4th Edition, Van Nostrand Reinhold (International); The VNR Seirie in Accounting and Finance; 11 New Fetter Lane, London.

26.   Ross, Westerfield &Jaffe (1999): **Corporate finance**, 5th Edition McGraw-Hill Int. Editions, Finance Series.

27.   Ombija G.A (2000): "Determinants of Motor Insurance   Profitability in Kenya", Unpublished MA Dissertation Paper, Makerere University.

28.   Uma S. (1986): **Research Methods for Business; "A Skill Building Approach"**, 2nd Edition.

29. Finnerty J.D. (1986): **Corporate Financial Analysis**: "A Comprehensive Guide to Real-World Approaches for Financial Managers", McGraw-Hill, Book Company, New York, St. Louis.

30. Franks J.R., Broyles J.E and Carleton W.T (1985): **Corporate Finance**: "Concepts and Applications", Kent Publishing Co., Boston, Massachusetts.

31. Hirt G. (1981): **Fundamentals of investment Management**, Irwin, Homewood, Illinois, USA.

32. Levy H. and Sarnat M. (1990): **Capital Investment and Financial Decisions**, 5th Edition.

33. Singh A. (1997): "Stock Markets, Financial Liberalization and Economic development", *Economic Journal* 107,pp. 771-82.

34. Mifa & World Bank (2001): "Privatization in Kenya", The World Bank, Washington D.C.

35. Pagano M. (1993): "Financial Markets and growth: An Overview", *European Economic Review*, 37, pp.613-32.

36. Calamanti A. (1983): "The Securities Markets and Underdevelopment: The stock Exchange in the Ivory Coast, Morocco and Tunisia", *The Credit Markets of Africa Series*, Finafrica Cariplo-Milan.

37. Chasteau de Baylon J. (1997): "Emerging Capital markets in Africa": Challenges and Opportunities.

38. Richards (1996): "Volatility and Predictability in National Stock Markets: How do emerging and Mature Markets differ?", IMF Staff Papers, Vol.43,pp.461-501.

39. Karanja j. (2001): "A study of Dividend Policy, Growth on Asset, Returns on Asset, and Return on Equity at the N.S.E.", Unpublished MBA Project, UoN, Nairobi.

40. Haugen R.A. (1986): **Modern Investment Theory**, Prentice-Hall, nglewood Cliffs, N.J.

41. Allyon V.R. (1998): "Managing Insurance Under a Liberalized Environment", Paper presented at the 11th General Conference of the Association of Insurers and Re-insurers in Developing Countries (AIRDC) Manila.

42. Mony S.V. (1993): "Liberalization and Privatization of Insurance Markets", Paper presented at the 20th Conference of the African Insurance Organization in Banjul.

43. Olotch W. (1982): "The Impact of Insurance to the National economy", Paper presented at the 9th African Insurance Conference In Addis Ababa.

44. Yuchengco A.T. (1998): "The Impact of Globalization on the Role of Insurers and Re-insurers In Developing Countries", paper presented at the 11th General Conference of AIRDC in Manila.

45. Ole Kipury J.L. (1995): "The Legal System and Insurance", Institute of Insurance, Kenya.

46. Mutiga J.M. (1991): "The Performance of Motor Insurance In Developing Countries", Underwriter, *Magazine for the Insurance Industry.*

47. Republic of Kenya, Laws of Kenya: The Insurance Act, Chapter 487, (1987).

APPENDICES
Appendix A.   Annual Returns of VIS: 1997-2001

Insurer	Year	P₀	P₁	Disposals(Ds)	D₁	(P₁+Ds-P₀)/P₀
		Kshs	Kshs	Kshs	Kshs	R
1. Blue Shield Ins. Co Ltd	1997	927,000	1,000,000	842,292	86,858	1.0811
	1998	1,000,000	1,683,000	3,007,608	0	3.6906
	1999	1,683,000	16,357,000	8,046,780	0	13.5002
	2000	16,357,000	15,992,000	13,080,288	15,919,797	1.7506
	2001	15,992,000	15,142,000	11,959,632	0	0.6947
2. British American Ins. Co Ltd	1997	47,540,000	51,078,000	78,656,556	2,941,589	1.7908
	1998	51,078,000	60,226,000	77,280,000	4,120,015	1.7727
	1999	60,226,000	68,552,000	128,040,000	2,583,000	2.3071
	2000	68,552,000	0	107,211,720	0	0.5639
	2001	0	64,924,000	88,198,560	0	0
3. Canon Assurance (K) Ltd	1997	54,295,000	54,379,000	25,977,156	3,016,629	0.5356
	1998	54,379,000	95,031,000	8,851,464	4,060,546	0.985
	1999	95,031,000	74,878,000	17,408,424	3,409,029	0.007
	2000	74,878,000	24,484,000	12,969,792	2,828,533	-0.462
	2001	24,484,000	53,263,000	23,633,772	2,158,957	2.2289
4. Fidelity Shield Ins. Co Ltd	1997	33,364,000	38,553,000	15,746,280	2,660,528	0.7072
	1998	38,553,000	43,768,000	11,540,448	2,610,210	0.5023
	1999	43,768,000	37,800,000	8,037,572	20,990,996	0.5269
	2000	37,800,000	22,914,000	21,268,792	21,737,846	0.7439
	2001	22,914,000	13,834,000	12,048,156	0	0.1295
5. First Assurance (K) Ltd	1997	3,550,000	3,550,000	45,809,280	0	12.904
	1998	3,550,000	3,550,000	3,267,912	0	0.9205
	1999	3,550,000	0	29,025,204	0	7.1761
	2000	0	0	30,280,548	0	0
	2001	0	0	24,840,000	0	0
6. Gemina Insurance. Co Ltd	1997	1,305,000	1,305,000	21,331,268	240,646	16.5302
	1998	1,305,000	1,305,000	40,260,666	182,823	30.9912
	1999	1,305,000	8,591,000	43,260,576	387,985	39.0303
	2000	8,591,000	9,051,000	69,253,952	684,657	8.1945
	2001	9,051,000	8,845,000	11,112,470	636,338	1.2753
7. Heritage A.I.I. Ins Co. Ltd	1997	28,743,000	77,480,000	34,999,860	15,017,932	3.4358
	1998	77,480,000	207,659,000	43,674,000	11,079,387	2.3868
	1999	207,659,000	228,868,000	28,569,120	14,511,771	0.3096
	2000	228,868,000	200,833,000	32,736,000	15,248,195	0.0872
	2001	200,833,000	193,451,000	17,091,456	17,616,411	0.1361
8. ICEA Insurance. Co Ltd	1997	1,475,963,000	1,466,024,000	118,732,230	83,881,268	0.1305
	1998	1,466,024,000	1,483,139,000	39,378,384	49,112,952	0.072
	1999	1,483,139,000	941,407,000	18,708,480	55,445,908	-0.3153
	2000	941,407,000	230,047,000	81,730,152	55,647,763	-0.6097
	2001	230,047,000	599,215,000	72,105,600	48,139,009	2.1274

Source Commissioner of Insurance

Insurer	Year	P_0	P_1	Disposals(DS)	D_1	$(P_1+D_S-P_0)/P_0$
9. Jubilee Ins. Co. Ltd	1997	575,187,000	804,788,000	14,210,160	31,354,647	0.4784
	1998	804,788,000	656,141,000	18,689,508	37,750,029	-0.1146
	1999	656,141,000	453,916,000	14,574,672	43,553,548	-0.2196
	2000	453,916,000	688,865,000	10,547,592	28,591,341	0.6038
	2001	688,865,000	820,505,000	812,052	25,845,062	0.2298
10. Kenya Orient Ins. Co Ltd	1997	0	0	7,425,120	0	0
	1998	0	9,000,000	4,557,540	0	0
	1999	9,000,000	9,000,000	4,030,080	0	0.4478
	2000	9,000,000	9,000,000	3,742,800	0	0.4159
	2001	9,000,000	9,000,000	1,936,224	0	0.2151
11. Madison Insurance. Co Ltd	1997	222,598,000	229,039,000	70,214,090	2,970,845	0.3577
	1998	229,039,000	277,997,000	65,899,344	5,482,182	0.5254
	1999	277,997,000	230,226,000	58,378,032	3,861,460	0.052
	2000	230,226,000	230,076,000	35,308,454	2,515,567	0.1636
	2001	230,076,000	232,664,000	63,187,632	3,113,028	0.2994
12. Mercantile Life& Gen. Ass	1997	0	0	3,815,136	0	0
	1998	0	4,700,000	10,442,880	578,408	0
	1999	4,700,000	2,278,000	18,970,428	171,715	3.5575
	2000	2,278,000	2,440,000	34,172,520	0	15.0722
	2001	2,440,000	2,588,000	10,570,248	0	4.3927
13. Old Mutual Life Ass. Co.	1997	412,142,000	1,160,707,000	9,750,000		1.8399
	1998	1,160,707,000	1,360,600,000	7,519,200	79,146,357	0.2469
	1999	1,360,600,000	1,178,818,000	6,801,600	84,381,118	-0.0666
	2000	1,178,818,000	1,031,477,000	4,687,800	89,696,216	-0.0449
	2001	1,031,477,000	775,734,000	5,553,600	80,138,508	-0.1649
14. Phoenix of E.A. Ass. Co. Ltd	1997	168,183,000	191,798,000	25,254,336	10,850,505	0.3551
	1998	191,798,000	217,653,000	33,090,132	12,184,837	0.3709
	1999	217,653,000	170,328,000	30,337,860	11,180,825	-0.0267
	2000	170,328,000	192,172,000	26,896,248	11,060,247	0.3511
	2001	192,172,000	121,970,000	40,360,932	11,712,159	-0.0943
15. United Ins. Co. Ltd	1997	122,658,000	144,113,000	41,613,264	0	0.5142
	1998	144,113,000	157,029,000	33,372,360	0	0.3212
	1999	157,029,000	79,796,000	48,956,676	0	-0.1801
	2000	79,796,000	1,753,000	47,827,716	0	-0.3787
	2001	1,753,000	18,265,000	21,956,400	0	21.9443

Source: Commissioner of Insurance

Appendix B.   Annual Returns of FIS: 1997-2001

Insurer	Year	P_0	P_1	Disposals(DS)	D_1	$(P_1+D_s-P_0)/P_0$
		Kshs	Kshs	Kshs	Kshs	R
1. Blue Shield Ins. Co Ltd	1997	57,900,000	146,900,000	25,691,904	24,021,994	2.3957
	1998	146,900,000	142,750,000	13,637,568	0	0.0646
	1999	142,750,000	142,750,000	45,117,324	8,238,211	0.3738
	2000	142,750,000	151,154,000	36,230,400	21,512,478	0.4634
	2001	151,154,000	178,322,000	21,991,200	18,023,913	0.4445
2. British American Ins. Co Ltd	1997	312,600,000	459,200,000	28,846,368	80,658,002	0.8193
	1998	459,200,000	531,200,000	28,849,728	34,175,426	0.294
	1999	531,200,000	405,000,000	72,540,252	22,531,912	-0.0586
	2000	405,000,000	468,725,000	63,784,320	51,917,279	0.443
	2001	468,725,000	574,371,000	58,910,280	65,255,990	0.4903
3. Canon Assurance (K) Ltd	1997	117,500,000	119,745,000	43,092,000	13,261,521	0.4987
	1998	119,745,000	191,000,000	19,851,869	29,300,953	1.0055
	1999	191,000,000	178,950,000	40,886,100	22,779;291	0.2702
	2000	178,950,000	134,900,000	38,814,720	27,294,542	0.1233
	2001	134,900,000	129,500,000	14,729,880	20,528,901	0.2213
4. Fidelity Shield Ins. Co Ltd	1997	52,250,000	85,000,000	8,838,720	14,347,652	1.0706
	1998	85,000,000	93,000,000	7,619,424	23,563,127	0.461
	1999	93,000,000	68,000,000	13,338,000	8,591,247	-0.033
	2000	68,000,000	114,443,000	14,822,400	0	0.901
	2001	114,443,000	194,648,000	11,800,800	17,209,084	0.9543
5. First Assurance (K) Ltd	1997	73,650,000	111,750,000	2,540,160	20,781,094	0.834
	1998	111,750,000	134,500,000	1,413,130	30,013,154	0.4848
	1999	134,500,000	161,000,000	2,464,452	14,281,210	0.3215
	2000	161,000,000	165,400,000	1,693,440	19,837,233	0.1611
	2001	165,400,000	234,850,000	2,138,400	23,245,565	0.5734
6. Geminia Insurance. Co Ltd	1997	85,700,000	130,100,000	10,269,504	21,318,525	0.8867
	1998	130,100,000	164,650,000	10,441,680	32,016,182	0.5919
	1999	164,650,000	222,150,000	2,103,468	26,072,600	0.5204
	2000	222,150,000	180,000,000	10,734,720	25,978,460	-0.0245
	2001	180,000,000	308,450,000	8,800,440	36,801,498	0.967
7. Heritage A.I.I. Ins Co. Ltd	1997	101,830,000	495,958,564	4,924,800	86,972,118	4.7729
	1998	495,958,564	535,594,023	2,161,728	122,547,287	0.3314
	1999	535,594,023	796,097,966	3,796,200	99,684,518	0.6796
	2000	600,410,432	771,951,837	1,900,800	92,070,358	0.4422
	2001	771,951,837	524,633,394	4,263,600	67,588,755	-0.2273
8. ICEA Insurance. Co Ltd	1997	1,148,350,000	1,632,850,000	14,388,192	336,708,636	0.7276
	1998	1,632,850,000	1,377,500,000	13,344,000	439,212,473	0.1208
	1999	1,377,500,000	1,825,951,000	12,767,544	308,933,944	0.5591
	2000	1,825,951,000	1,953,000,000	11,712,000	193,790,120	0.1821
	2001	1,953,000,000	2,836,365,000	1,478,400	313,891,422	0.6138

Source Commissioner of Insurance

Appendix B. Cont'd Annual Returns of FIS: 1997-2001

Insurer	Year	P_0	P_1	Disposals(DS)	D_1	$(P_1+D_s-P_0)/P_0$
9. Jubilee Ins. Co. Ltd	1997	446,250,000	905,900,000	603,936	71,094,603	1.1907
	1998	905,900,000	989,450,000	533,760	227,687,421	0.3442
	1999	989,450,000	1,182,300,000	3,874,176	125,293,446	0.3255
	2000	1,182,300,000	985,518,338	3,701,760	151,028,451	-0.0356
	2001	985,518,338	1,472,460,382	4,270,200	156,506,115	0.6572
10. Kenya Orient Ins. Co Ltd	1997	52,750,000	27,500,000	1,469,664	9,526,807	-0.2702
	1998	27,500,000	27,600,000	640,512	3,551,696	0.1561
	1999	27,600,000	40,250,000	1,282,500	2,545,273	0.597
	2000	40,250,000	37,500,000	1,378,560	6,627,578	0.1306
	2001	37,500,000	20,000,000	843,480	991,966	-0.4177
11. Madison Insurance. Co Ltd	1997	112,000,000	186,000,000	1,586,304	27,159,773	0.9174
	1998	186,000,000	270,000,000	1,030,157	49,043,887	0.7208
	1999	270,000,000	219,000,000	1,417,932	30,152,489	-0.072
	2000	219,000,000	255,000,000	1,115,520	25,962,127	0.288
	2001	255,000,000	261,150,000	642,840	26,057,521	0.1288
12. Mercantile Life& Gen. Ass	1997	49,650,000	123,600,000	5,495,040	20,841,356	2.0199
	1998	123,600,000	234,850,000	959,437	42,103,858	1.2485
	1999	234,850,000	266,950,000	2,583,468	29,046,323	0.2714
	2000	266,950,000	343,200,000	6,216,960	36,583,363	0.446
	2001	343,200,000	424,700,000	8,924,520	48,313,110	0.4042
13. Old Mutual Life Ass. Co.	1997	150,771,000	196,946,000	4,898,880	47,697,064	0.6551
	1998	196,946,000	289,290,597	2,361,888	70,725,782	0.84
	1999	289,290,597	287,240,967	3,414,528	48,980,564	0.174
	2000	287,240,967	287,786,402	3,686,400	46,763,529	0.1775
	2001	287,786,402	352,597,196	3,379,200	24,318,380	0.3214
14. Phoenix of E.A. Ass. Co. Ltd	1997	68,300,000	180,350,000	16,412,544	32,320,780	2.3541
	1998	180,350,000	100,650,000	11,047,498	19,598,900	-0.272
	1999	100,650,000	90,100,000	21,802,500	11,863,713	0.2297
	2000	90,100,000	101,623,557	23,253,120	12,699,789	0.5269
	2001	101,623,557	136,927,380	29,335,680	14,087,458	0.7747
15. United Ins. Co. Ltd	1997	61,300,000	28,250,000	107,026,272	6,227,552	1.3084
	1998	28,250,000	6,800,000	31,519,860	1,394,221	0.4058
	1999	6,800,000	55,950,000	56,674,188	15,592,608	17.8554
	2000	55,950,000	49,251,254	69,598,080	2,785,845	1.174
	2001	49,251,254	40,222,000	26,400,000	4,304,558	0.4401

Source Commissioner of Insurance

Appendix C. Beginning and Ending Market Values (Kshs): 1997 - 2001

Insurer	Year	VARIABLE INCOME SECURITIES		FIXED INCOME SECURITIES	
		Beginning M.V	Ending M.V	Beginning M.V	Ending M.V
1. Blue Shield Ins. Co Ltd	1997	927,000	1,000,000	57,900,000	146,900,000
	1998	1,000,000	1,683,000	146,900,000	142,750,000
	1999	1,683,000	16,357,000	142,750,000	142,750,000
	2000	16,357,000	15,992,000	142,750,000	151,154,000
	2001	15,992,000	15,142,000	151,154,000	178,322,000
2. British American Ins. Co Ltd	1997	47,540,000	51,078,000	312,600,000	459,200,000
	1998	51,078,000	60,226,000	459,200,000	531,200,000
	1999	60,226,000	68,552,000	531,200,000	405,000,000
	2000	68,552,000	0	405,000,000	468,725,000
	2001	0	64,924,000	468,725,000	574,371,000
3. Canon Assurance (K) Ltd	1997	54,295,000	54,379,000	117,500,000	119,745,000
	1998	54,379,000	95,031,000	119,745,000	191,000,000
	1999	95,031,000	74,878,000	191,000,000	178,950,000
	2000	74,878,000	24,484,000	178,950,000	134,900,000
	2001	24,484,000	53,263,000	134,900,000	129,500,000
4. Fidelity Shield Ins. Co Ltd	1997	33,364,000	38,553,000	52,250,000	85,000,000
	1998	38,553,000	43,768,000	85,000,000	93,000,000
	1999	43,768,000	37,800,000	93,000,000	68,000,000
	2000	37,800,000	22,914,000	68,000,000	114,443,000
	2001	22,914,000	13,834,000	114,443,000	194,648,000
5. First Assurance (K) Ltd	1997	3,550,000	3,550,000	73,650,000	111,750,000
	1998	3,550,000	3,550,000	111,750,000	134,500,000
	1999	3,550,000	0	134,500,000	161,000,000
	2000	0	0	161,000,000	165,400,000
	2001	0	0	165,400,000	234,850,000
6. Gemina Insurance. Co Ltd	1997	1,305,000	1,305,000	85,700,000	130,100,000
	1998	1,305,000	1,305,000	130,100,000	164,650,000
	1999	1,305,000	8,591,000	164,650,000	222,150,000
	2000	8,591,000	9,051,000	222,150,000	180,000,000
	2001	9,051,000	8,845,000	180,000,000	308,450,000
7. Heritage A.I.I. Ins Co. Ltd	1997	28,743,000	77,480,000	101,830,000	495,958,564
	1998	77,480,000	207,659,000	495,958,564	535,594,023
	1999	207,659,000	228,868,000	535,594,023	796,097,966
	2000	228,868,000	200,833,000	600,410,432	771,951,837
	2001	200,833,000	193,451,000	771,951,837	524,633,394
8. ICEA Insurance. Co Ltd	1997	1,475,963,000	1,466,024,000	1,148,350,000	1,632,850,000
	1998	1,466,024,000	1,483,139,000	1,632,850,000	1,377,500,000
	1999	1,483,139,000	941,407,000	1,377,500,000	1,825,951,000
	2000	941,407,000	230,047,000	1,825,951,000	1,953,000,000
	2001	230,047,000	599,215,000	1,953,000,000	2,836,365,000

Source: Commissioner of Insurance

Appendix C. Cont'd Beginning and Ending Market Values (Kshs): 1997 - 2001

Insurer	Year	VARIABLE INCOME SECURITIES		FIXED INCOME SECURITIES	
		Beginning M.V	Ending M.V	Beginning M.V	Ending M.V
9. Jubilee Ins. Co. Ltd	1997	575,187,000	804,788,000	446,250,000	905,900,000
	1998	804,788,000	656,141,000	905,900,000	989,450,000
	1999	656,141,000	453,916,000	989,450,000	1,182,300,000
	2000	453,916,000	688,865,000	1,182,300,000	985,518,338
	2001	688,865,000	820,505,000	985,518,338	1,472,460,382
10. Kenya Orient Ins. Co Ltd	1997	0	0	52,750,000	27,500,000
	1998	0	9,000,000	27,500,000	27,600,000
	1999	9,000,000	9,000,000	27,600,000	40,250,000
	2000	9,000,000	9,000,000	40,250,000	37,500,000
	2001	9,000,000	9,000,000	37,500,000	20,000,000
11. Madison Insurance. Co Ltd	1997	222,598,000	229,039,000	112,000,000	186,000,000
	1998	229,039,000	277,997,000	186,000,000	270,000,000
	1999	277,997,000	230,226,000	270,000,000	219,000,000
	2000	230,226,000	230,076,000	219,000,000	255,000,000
	2001	230,076,000	232,664,000	255,000,000	261,150,000
12. Mercantile Life& Gen. Ass	1997	0	0	49,650,000	123,600,000
	1998	0	4,700,000	123,600,000	234,850,000
	1999	4,700,000	2,278,000	234,850,000	266,950,000
	2000	2,278,000	2,440,000	266,950,000	343,200,000
	2001	2,440,000	2,588,000	343,200,000	424,700,000
13. Old Mutual Life Ass. Co.	1997	412,142,000	1,160,707,000	150,771,000	196,946,000
	1998	1,160,707,000	1,360,600,000	196,946,000	289,290,597
	1999	1,360,600,000	1,178,818,000	289,290,597	287,240,967
	2000	1,178,818,000	1,031,477,000	287,240,967	287,786,402
	2001	1,031,477,000	775,734,000	287,786,402	352,597,196
14. Phoenix of E.A. Ass. Co. Ltd	1997	168,183,000	191,798,000	68,300,000	180,350,000
	1998	191,798,000	217,653,000	180,350,000	100,650,000
	1999	217,653,000	170,328,000	100,650,000	90,100,000
	2000	170,328,000	192,172,000	90,100,000	101,623,557
	2001	192,172,000	121,970,000	101,623,557	136,927,380
15. United Ins. Co. Ltd	1997	122,658,000	144,113,000	61,300,000	28,250,000
	1998	144,113,000	157,029,000	28,250,000	6,800,000
	1999	157,029,000	79,796,000	6,800,000	55,950,000
	2000	79,796,000	1,753,000	55,950,000	49,251,254
	2001	1,753,000	18,265,000	49,251,254	40,222,000

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Appendix D. Interest and Dividends Received (Kshs): 1997 - 2001

Insurer	Year	Variable Income Securities	Fixed Income Securities
		Dividends	Interest
1. Blue Shield Ins. Co Ltd	1997	86,858	24,021,994
	1998	0	0
	1999	0	8,238,211
	2000	15,919,797	21,512,478
	2001	0	18,023,913
2. British American Ins. Co Ltd	1997	2,941,589	80,658,002
	1998	4,120,015	34,175,426
	1999	2,583,000	22,531,912
	2000	0	51,917,279
	2001	0	65,255,990
3. Canon Assurance (K) Ltd	1997	3,016,629	13,261,521
	1998	4,060,546	29,300,953
	1999	3,409,029	22,779,291
	2000	2,828,533	27,294,542
	2001	2,158,957	20,528,901
4. Fidelity Shield Ins. Co Ltd	1997	2,660,528	14,347,652
	1998	2,610,210	23,563,127
	1999	20,990,996	8,591,247
	2000	21,737,846	0
	2001	0	17,209,084
5. First Assurance (K) Ltd	1997	0	20,781,094
	1998	0	30,013,154
	1999	0	14,281,210
	2000	0	19,837,233
	2001	0	23,245,565
6. Geminia Insurance. Co Ltd	1997	240,646	21,318,525
	1998	182,823	32,016,182
	1999	387,985	26,072,600
	2000	684,657	25,978,460
	2001	636,338	36,801,498
7. Heritage A.I.I. Ins Co. Ltd	1997	15,017,932	86,972,118
	1998	11,079,387	122,547,287
	1999	14,511,771	99,684,518
	2000	15,248,195	92,070,358
	2001	17,616,411	67,588,755
8. ICEA Insurance. Co Ltd	1997	83,881,268	336,708,636
	1998	49,112,952	439,212,473
	1999	55,445,908	308,933,944
	2000	55,647,763	193,790,120
	2001	48,139,009	313,891,422

Source Commissioner of Insurance

Appendix D. Cont'd   Interest and Dividends Received (Kshs): 1997 - 2001

Insurer	Year	Variable Income Securities Dividends	Fixed Income Securities Interest
9. Jubilee Ins. Co. Ltd	1997	31,354,647	71,094,603
	1998	37,750,029	227,687,421
	1999	43,553,548	125,293,446
	2000	28,591,341	151,028,451
	2001	25,845,062	156,506,115
10. Kenya Orient Ins. Co Ltd	1997	0	9,526,807
	1998	0	3,551,696
	1999	0	2,545,273
	2000	0	6,627,578
	2001	0	991,966
11. Madison Insurance. Co Ltd	1997	2,970,845	27,159,773
	1998	5,482,182	49,043,887
	1999	3,861,460	30,152,489
	2000	2,515,567	25,962,127
	2001	3,113,028	26,057,521
12. Mercantile Life& Gen. Ass	1997	0	20,841,356
	1998	578,408	42,103,858
	1999	171,715	29,046,323
	2000	0	36,583,363
	2001	0	48,313,110
13. Old Mutual Life Ass. Co.	1997		47,697,064
	1998	79,146,357	70,725,782
	1999	84,381,118	48,980,564
	2000	89,696,216	46,763,529
	2001	80,138,508	24,318,380
14. Phoenix of E.A. Ass. Co. Ltd	1997	10,850,505	32,320,780
	1998	12,184,837	19,598,900
	1999	11,180,825	11,863,713
	2000	11,060,247	12,699,789
	2001	11,712,159	14,087,458
15. United Ins. Co. Ltd	1997	0	6,227,552
	1998	0	1,394,221
	1999	0	15,592,608
	2000	0	2,785,845
	2001	0	4,304,558

Source: Commissioner of Insurance

Appendix E. Net Annual Disposals (Kshs): 1997 - 2001

Insurer	Year	Variable Income Securities	Fixed Income Securities
1. Blue Shield Ins. Co Ltd	1997	842,292	25,691,904
	1998	3,007,608	13,637,568
	1999	8,046,780	45,117,324
	2000	13,080,288	36,230,400
	2001	11,959,632	21,991,200
2. British American Ins. Co Ltd	1997	78,656,556	28,846,368
	1998	77,280,000	28,849,728
	1999	128,040,000	72,540,252
	2000	107,211,720	63,784,320
	2001	88,198,560	58,910,280
3. Canon Assurance (K) Ltd	1997	25,977,156	43,092,000
	1998	8,851,464	19,851,869
	1999	17,408,424	40,886,100
	2000	12,969,792	38,814,720
	2001	23,633,772	14,729,880
4. Fidelity Shield Ins. Co Ltd	1997	15,746,280	8,838,720
	1998	11,540,448	7,619,424
	1999	8,037,572	13,338,000
	2000	21,268,792	14,822,400
	2001	12,048,156	11,800,800
5. First Assurance (K) Ltd	1997	45,809,280	2,540,160
	1998	3,267,912	1,413,130
	1999	29,025,204	2,464,452
	2000	30,280,548	1,693,440
	2001	24,840,000	2,138,400
6. Geminia Insurance. Co Ltd	1997	21,331,268	10,269,504
	1998	40,260,666	10,441,680
	1999	43,260,576	2,103,468
	2000	69,253,952	10,734,720
	2001	11,112,470	8,800,440
7. Heritage A.I.I. Ins Co. Ltd	1997	34,999,860	4,924,800
	1998	43,674,000	2,161,728
	1999	28,569,120	3,796,200
	2000	32,736,000	1,900,800
	2001	17,091,456	4,263,600
8. ICEA Insurance. Co Ltd	1997	118,732,230	14,388,192
	1998	39,378,384	13,344,000
	1999	18,708,480	12,767,544
	2000	81,730,152	11,712,000
	2001	72,105,600	1,478,400

Source: Commissioner of Insurance

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Appendix E. Cont'd Net Annual Disposals (Kshs): 1997 - 2001

Insurer	Year	Variable Income Securities	Fixed Income Securities
10. Kenya Orient Ins. Co Ltd	1997	7,425,120	1,469,664
	1998	4,557,540	640,512
	1999	4,030,080	1,282,500
	2000	3,742,800	1,378,560
	2001	1,936,224	843,480
11. Madison Insurance. Co Ltd	1997	70,214,090	1,586,304
	1998	65,899,344	1,030,157
	1999	58,378,032	1,417,932
	2000	35,308,454	1,115,520
	2001	63,187,632	642,840
12. Mercantile Life& Gen. Ass	1997	3,815,136	5,495,040
	1998	10,442,880	959,437
	1999	18,970,428	2,583,468
	2000	34,172,520	6,216,960
	2001	10,570,248	8,924,520
13. Old Mutual Life Ass. Co.	1997	9,750,000	4,898,880
	1998	7,519,200	2,361,888
	1999	6,801,600	3,414,528
	2000	4,687,800	3,686,400
	2001	5,553,600	3,379,200
14. Phoenix of E.A. Ass. Co. Ltd	1997	25,254,336	16,412,544
	1998	33,090,132	11,047,498
	1999	30,337,860	21,802,500
	2000	26,896,248	23,253,120
	2001	40,360,932	29,335,680
15. United Ins. Co. Ltd	1997	41,613,264	107,026,272
	1998	33,372,360	31,519,860
	1999	48,956,676	56,674,188
	2000	47,827,716	69,598,080
	2001	21,956,400	26,400,000

Source: Commissioner of Insurance